THE JOURNAL OF INDIAN ART AND INDUSTRY

PRICE TWO SHILLINGS.

Vol. V.

APRIL, 1892.] [No. 38.

CONTENTS

THE SILK INDUSTRIES OF MOORSHEDABAD.

BY

BABOO NITYA GOPAL MOOKERJI, DEPUTY COLLECTOR

Saris. Scarfs.

Handkerchiefs.

Gold Embroidered Purse.

Skeins of Silk.

NOTES ON AN AHMEDABAD CARVED SCREEN AND BRACKET.

BY MR. HENRY E. M. JAMES, BO. C.S.

Screen.

Bracket.

Details of same.

RAM SINGH DEL. MAYO SCHOOL OF ART LAHORE

Published under the patronage of the Government of India.

PHOTOGRAPHED, PRINTED, AND PUBLISHED BY W. GRIGGS, ELM HOUSE, HANOVER STREET, PECKHAM, LONDON.

LONDON AGENT—BERNARD QUARITCH, 15, PICCADILLY, W.

ESTABLISHED 1810.

SUN LIFE OFFICE,

FOR OLD AGE ASSURANCES, PAYABLE IN LIFETIME OR AT PREVIOUS DEATH.

At the last Division of Profits the Distribution was extraordinary, the average return in actual cash being more than **£36** *in every* **£100** *paid in premiums, reducing the ultimate cost of policies to a very large extent; and under Table A (with Profits) to absolutely less than the net mathematical premium required to carry the risk, that is*

"UNDER COST PRICE."

Apply for the New Prospectuses to the Chief Office, 63, Threadneedle Street, E.C.

HARRIS C. L. SAUNDERS, General Manager.

First produced and designated CORN FLOUR by BROWN and POLSON in 1856.

BROWN & POLSON'S CORN FLOUR

Was in the field some time before any other was anywhere heard of, and no other has now an equal claim to the public confidence.

Every Canister and Packet bears the fac-simile signatures—JOHN BROWN, JOHN POLSON.

NEARLY READY. Royal 4to., Cloth Gilt, with Photographs reproduced by Mr. W. Griggs. Price **£3 3s.**

MAHÂBODHI, or the Great Buddhist Temple

Under the Bodhi Tree at Buddha Gaya,

BY

SIR ALEXANDER CUNNINGHAM, R.E., K.C.I.E., C.S.I.

THE *Mahâbodhi* Temple derived its name from the famous "Bodhi Tree" under which Sâkya Muni sat in Meditation for six years until he became a Buddha. Every Buddha had a Bodhi Tree; but the holy Pippala Tree at the village of *Uruvilwa*, now *Urel*, was the only one distinguished by the title of *Mahâ-Bodhi*, or the "Great Bodhi Tree." Its Temple was called the *Mahâ-Bodhi Vihâra*, and its monastery the *Mahâ-Bodhi Sanghârâmá*. Throughout the Buddhist world the sight was simply known as "the Mahâbodhi." For several centuries pilgrims came from China, Ceylon, and Tibet, to pay their devotions at *Mahâbodhi;* and to this day the Great Temple at *Urel*, or Buddha Gayâ, is still known to the people as the *Mahâbodhi*.

For a long time this grand Temple, 170 feet in height, had been in a ruinous state, until in 1879 it attracted the attention of Sir Ashley Eden, the Lieut.-Governor of Bengal, who appointed Mr. J. D. Beglar, formerly of the Public Works Department, to repair it. The author of the present work visited the Temple every year while the repairs were in progress, and he thus obtained much valuable information from Mr. Beglar regarding the various discoveries which had been made by the clearance of the great mass of rubbish, the accumulation of many centuries. The author was also present at the finding of the important historical relics beneath the ruined Throne of Buddha.

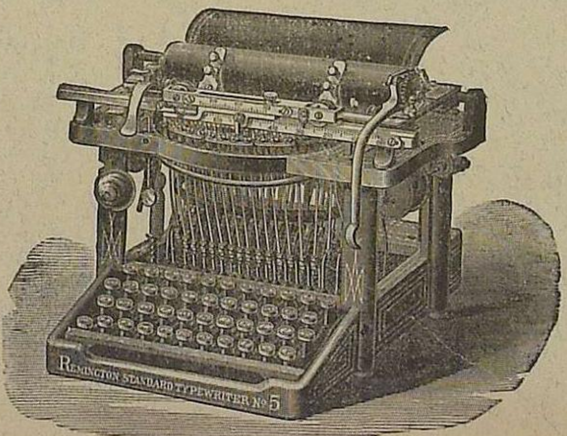
The history of the Great Temple has been traced from the foundation of the original building of Asoka in 250 B.C., of which many interesting traces were found. The present Temple is shown to have been built almost certainly during the reign of the Indo-Scythian King Huvishka, about A.D. 140. It occupied the same site as the original Temple, and actually retained the original *Vajrâsana*, or "Adamant Throne" of Asoka. The notices of the Temple are continued down to the Muhammadan Conquest in 1206 A.D. The successive additions and repairs are all described in detail, and the date of the Burmese Restoration is fixed to the 11th century.

The total absence of any trace of foreign architecture, save that of ancient Persia, would seem to prove that the Persepolitan style had been firmly established in Northern India during the occupancy of the Punjab by Darius and his successors.

London: W. H. ALLEN & CO., Limited, 13, Waterloo Place, S.W. *Publishers to the India Office.*

REMINGTON STANDARD TYPEWRITER

A WORD TO BUSINESS MEN.



You cannot afford to do your writing in the old way.

Our New Model Machine has been adopted in all the Departments of the Government Service, and is being very generally introduced by all leading business houses. Does not this argue that the Type-writer should be worth something to you? The machines can be furnished with special keyboards to suit purchaser's line of business. Write for full information.

Principal Office—LONDON: 100, GRACECHURCH ST., E.C.

(Corner of Leadenhall Street). TELEPHONE 2,464.

Branch Offices—LIVERPOOL: 2c, Queen's Avenue, 15, Castle Street.

BIRMINGHAM: 23, Martineau Street. MANCHESTER: 8, Moult Street.

Armorial Bearings

OF THE

Prince and Princess of Wales.

Photo-lithographed in colours by W. Griggs, from a drawing specially prepared for him and certified by H. Farnham Burke, F.S.A., Somerset Herald, Heralds' College.

Copies (15 inches by 11), of which only a very limited number have been struck off, can be obtained, post free, price 5/-, from

W. GRIGGS & SONS, LD.,

Elm House, Hanover Street, Peckham, S.E.

The Journal of Indian Art and Industry.

THE SILK INDUSTRIES OF MOORSHEDABAD.

By BABOO NITYA GOPAL MOOKERJI, Deputy Collector.

I.—DECLINE OF THE INDUSTRY.

THE decline of the silk industry of Moorshedabad in the department of artistic fabrics is more rapid and intense than in any other department. The trade in these fabrics is chiefly inland, and no exact information, such as can be obtained of the slower decline in the export trade, or of the more rapid progress of the import trade in silk, is available for the trade in the Moorshedabad artistic fabrics generally. The evidence of this decline is abundantly clear in the villages themselves where these fabrics are made. Less and less is becoming the income of the weavers, and everywhere they point out to strangers the ancestral brick-built houses now in ruins, while they themselves live in thatched cottages. Fewer and fewer looms are employed in silk fabrics, and the weavers are taking to other occupations. The unnatural state of sterling exchange that prevailed for a few years gave a temporary impetus to the *korah* trade, which has again sunk to a very low level. The causes of the decline are not far to seek, and they may be summarised here:—

1. Ignorance of the Weavers.—Living in their obscure villages, to which the industry is almost confined, the weavers are unable to understand the nature or the demands of the market. They have not the spirit of enterprise to deal directly even with Calcutta, Bombay, Lahore and other places, to which the middlemen, the native silk merchants, convey their goods. These are chiefly up-country men, few and rich, who make advances of money to weavers, and buy goods from them very cheap. The weavers do not believe in the modern plan of advertising and sending samples. They have plenty of vanity still left to them in their poverty and ignorance, and they believe their art to be inimitable, and if samples are sent to Europe, cheaper imitations will be the only result, and silk weaving will then decline as rapidly as cotton weaving.

2. Poverty of the Weavers.—Even if the weavers could be made to understand that their only hope of competing successfully with foreigners was the introduction of the power-loom, they would find themselves helpless. It is vain to expect the rich middlemen to be generous even in their own indirect interest. They are rich, but they also are ignorant. The only hope of amelioration rests, therefore, in these traders organising a system of technical education for themselves.

3. Decline of the Hindu Religion.—The inland trade in Berhampur silk mainly rests on the requirements of the Hindu ceremonial rites. Pure silk stuffs, it does not matter how coarse or uncouth they are, are required for strictly Hindu ceremonials, and in the Berhampur silk the admixture of cotton or jute is nowhere practised. Where the silk industry is in the hands of Mahomedans, as in most other parts of India, pure silk (which is unclean in the estimation of Mahomedans) is not so readily secured. Hence the demand for Berhampur silk all over India. The silks used for presents to Brahmans are the cheapest and most worthless stuffs possible, but they are nevertheless pure silk. The silk *dhotis* and *saris* [No. 6(16)] used by Maharatta men and women for wearing after their morning bath are horribly coarse, but they are made only with silk waste. The trade in these fabrics is so extensive that an attempt was made by some European firm to replace still cheaper but better looking foreign *dhotis* and *saris*. It was soon found out, however, that these foreign *dhotis* and *saris* were not made of pure silk, and it caused some scandal among the Maharattas, and the inland trade in Berhampur *dhotis* and *saris* remained unaffected by the attempt. Notwithstanding the ceremonial requirements of the Hindus, it is becoming only too common, at least in Bengal, to use not only foreign silks, but also to pass off pure cotton, jute, or woollen stuffs as *pattabastra* (or pure silk). The demand for the articles required for ceremonial purposes is slowly but steadily falling off with the decline of the Hindu faith.

4. Decline of Taste.—The growing demand in India is for stuffs that *look* silky and catch the eye by their finish and the "European elegance" of pattern. A *sari* which would take four months in weaving would be so full of figures and different colours that the modern educated eye would at once pronounce it "clumsy," and one would now pay more for, and buy more readily, a *sari* with less figures and with less variety of colours. The "clumsy" patterns have thus ceased to be made. In Nos. 3 and 4 (9*a* and 9*b*) are striking examples of the old "clumsy" patterns and the modern "decent patterns." To set the loom to bring out a new pattern according to the demand of the market is, however, beyond the power of the ordinary weaver. There is, in fact, only one man now in this district (Dubraj of Bahadurpur) who can set the loom to any pattern he sees. Even for the old patterns, if a loom gets out of order, the weaver takes it to Dubraj to restore it. When Dubraj will be no more (and he is getting aged), the production of artistic fabrics will become a thing of the past in this district. Dubraj is a poor man, and he is naturally anxious to keep his knowledge to himself, which brings him occasional fees when a weaver brings his loom to be adjusted by him; but he is quite willing to impart his knowledge to others if he is patronised, and his private interest protected. Dubraj is not ambitious, and he is quite willing to teach his fellow-weavers the art of setting the loom to a desired pattern if he gets a monthly pay of Rs 30 or Rs 40. It would thus seem necessary to offer this patronage to Dubraj if the art industry of Moorshedabad is to be kept alive and revived.

We will allude to the subjects of the introduction of fugitive dyes, of poor and untwisted silk, and of heavy sizing, later on. The practices that have thus come into existence by virtue of modern taste and foreign competition, result in the utter collapse of most articles after washing. Good weavers, however, resist the temptation to these practices, and although they have to turn out "decent patterns," they prove genuine and lasting. No. 4 (9*b*) represents a *sari* woven by Dubraj in one month. It will stand any amount of washing, though modern; no aniline colours being used, nor any sugar, to improve the look.

The decline in taste cannot be helped. Our ladies will not wear *saris* of "clumsy patterns," and they are content to have cheaper *saris*, because "decent patterns" cannot be made dear. But the taste that looks for cheapness even at the sacrifice of economy is certainly vicious, and an improvement in this direction is possible.

5. Want of Patronage.—The spread of English education is bringing about socialistic ideas which are least helpful to the growth of art. Colourless piece-goods are the favourite objects of patronage among the educated Indians. Even Indian ladies are beginning to admire Persian lawns and their *mulmuls* in preference to ready-made *saris*. They tack black or brown ribbons to their edges and wear them as *saris*. The spread of Puritanic ideas in religion, which at one time did such harm to European art, is now doing the same harm in India. Socialism and Puritanism are noticeable only too distinctly in the garments worn by the educated natives of India. The rich zemindar now avoids the shawl turban, and prefers wearing a satin or alpacca head-piece, the fashionable turban of modern Bengal; while the poor clerk strives every nerve to save his five rupees to buy a similar head-dress, and stand side by side at the polling booth in a municipal election and appear as decently and respectably clad as the zemindar. Modern art, to quote the words of the writer of the article on the decline of Indian taste, in the last February number of the *Nineteenth Century*, "like a socialistic *régime*, smells of what is vulgar, and underbred and coarse, and, worse still, unlettered and superficial." Such being the state of the native æsthetic taste, there is no wonder that for some years past the only high-priced *saris* that Dubraj has made has been for the European officials at Berhampur, to whom these high-priced *saris* are really of no practical use.

II.—LOCALITIES.

What is commonly and everywhere known as "Berhampur silk" is manufactured in four different centres. These are—Baluchar, Mirzapur, Khagra, and Islampur,—all in the district of Moorshedabad. Besides these four principal centres there are hundreds of villages throughout the district where pierced cocoons are employed for obtaining a coarse thread used in making *matkas*, of which the trade is very extensive. In large towns, such as Kandi and Beldanga, also, a few looms are employed for local use.

(1) Baluchar is about 14 miles north of Berhampur, on the river Bhaghirathi. Azimgunge, the terminus of a small branch of the East Indian Railway, is on the opposite side of the river. Baluchar and Azimgunge are both very rich towns, being inhabited by a large number of Jain merchants, some of whom are silk merchants. Bisen Chand Babu and Khetu Babu are the principal exporters of silk goods. There is no weaving done at Baluchar or Azimgunge, but only in the neighbouring villages. These are Bahadurpur, Amaipara, Ramnapara, Ramdahar, Baligram, Bagdahar, Beliapokhur, Amdahar, and Ransagar. Of these, Bahadurpur is the most famous, being the native place of Dubraj, who is the only surviving master-weaver of the village. The weavers of *saris* come to Dubraj from the other villages, to get their looms adjusted. At Bahadurpur also is produced the best fabrics, although there are only six looms in the village, all owned by Dubraj. The articles made in these villages are—Baluchar *butedar sari* [No. 4 (9)]; *reiya*, with or without gold embroidery; *mekhla*, with or without gold embroidery; shawls; scarfs [No. 5 (10)]; *chelis*; *banhus*; *churis* [No. 1 (6)]; and *charkhana* [No. 1 (4)]. These and other fabrics will be described later on.

(2) Mirzapur and the neigbouring villages near Jangipur are still more retired and difficult of access. In point of art Mirzapur is only next in importance to Baluchar. The decline of the industry in these villages is not so marked as in those near Baluchar, the principal reason being that only "decent" articles are manufactured in them, such as are still in fashion and use among the rich in Bengal. The articles made in these villages are—*dhotis* with or without borders; *saris* with two or three long borders [No. 2 (8)]; *jors*; *alwans*; gown pieces, plain or twilled [No. 1 (5)]; *korahs*; handkerchiefs, plain or bordered; *chelis* of superior quality; and *hawai* goods (silk muslin) of various descriptions [No. 1 (12)]. Mrityunjay Sarkar of Gankar, Mirzapur, is the principal man in these villages. The goods are almost invariably brought to Berhampur for sale to the local Bengalee, up-country or European merchants, or to shop-keepers, or to private individuals.

(3) Khagra is a portion of Berhampur. It produces—*chelis*; *dhotis*; *jors*; *rekhis* [No. 1 (1)]; *dharis* [No. 6 (11)]; *chaukaras* [No. 1 (2)]; *matras* [No. 1 (3)]; *phulikat* handkerchiefs [No. 6 (13)]; and *banhus* [No. 1 (7)]. Printing of handkerchiefs [No. 7 (14)] and *namabalis* [No. 7 (15)] used to be done at Khagra, but *korahs* are now imported to Cossipur, Santipur, and Bombay for this purpose, and printing is now done only occasionally to order in this district. The principal manufacturer and wholesale merchant of this centre is Baboo Sasi Bhusan Chowdhry of Berhampur. The other wholesale merchants are Kalidas Premji, Dharam See Kanji, and Gopal Dass Makundalal, all of Berhampur.

(4) Islampur Chak is in the interior of the district and still more difficult of access. The principal articles made here are—poorer classes of *korahs* and *chelis*; *dhotis*; *matkas*, white, with or without borders, yellow, and chequered [No. 6 (16)]. The principal manufacturer and local dealer of this centre is Bata Krishna Ranu. The goods find their way chiefly to Berhampur. The finer *matkas* used in Bengal are not made in this district, but mainly at Mirgunge, in the district of Rajshahye.

III.—DESTINATION.

A small proportion of the fabrics just named is consumed in Bengal, the rest being exported to other provinces or to other countries. The different countries to which silk pieces are exported from India will be found tabulated in the report of the Committee of the Bengal Chamber of Commerce for 1889–90, and the table need not therefore be given here. But we may consider the details of the export to other provinces of India, and to some of the principal foreign countries. The costliest fabrics are used in Bengal Proper and in Assam. In Bengal only are the highly artistic products utilized. These are the Baluchar *butedars*, *dhotis*, *saris*, *jors*, the

better classes of *chelis*, gown pieces, *hawai* goods, *rekhis*, scarfs, shawls, *alwans*, *charkhanas*, and plain and bordered handkerchiefs. To Europe *korahs* only are exported. Printed handkerchiefs used to be exported from this district only a few years ago, but it is no longer done. To Bombay poor *chelis* are sent, also *korahs* for printing. To Rangoon are exported *phulikat* handkerchiefs and *banhus*. European prints and handkerchiefs of showy patterns and of less price, are in Burmah gradually replacing Bengal articles. The *banhu* illustrated in No. 1 (7) is out of an old and decayed piece, the exportation of this style of *banhus* having ceased altogether. To the North-Western Provinces and the Punjab are sent *matichurs* or *churis* made out of *matkas* or *korahs*. To Arabia are sent *dharis*, *chunkaras* and *matras*. *Reiyas* and *mekhlas*, with or without gold embroidery, are sent to Assam. *Chadders* made in the style of the Eria-silk *chadders* of Assam manufacture, are woven out of mulberry silk-waste in this district and sent to Assam. To all parts of India where Maharattas live, *matkas* with or without fringe, white, coloured, or checked, are sent, and there is a very large trade in this article. The three firms of up-country merchants at Berhampur mentioned before trade chiefly in *matkas*. *Korahs* and *chelis* are exported to most parts of India. *Chelis* are used for ceremonial purposes all over the country, and they are also used for lining purposes.

IV.—CLASSIFICATION AND DESCRIPTION.

The silk fabrics of Moorshedabad may be divided into four classes—(1) fabrics made with *naksha* looms, *i.e.*, looms worked with "harness cords;" (2) fabrics made with ordinary looms, *i.e.*, looms worked with "healds" only; (3) dyed and printed fabrics; and (4) fabrics ornamented with gold and silver threads.

(I.) Fabrics made with Naksha Looms—

1. Baluchar *butedar saris* with *anchlas* or an ornamental end-piece. These *saris* are made 10 cubits long and 42 to 45 inches wide. The prices vary, according to the quality, from Rs 10 to Rs 50. For the cheaper articles untwisted and ill-sorted raw silk is used; the number of threads in the warp is fewer, the web loosely woven, the dyes used are fugitive, and finally the appearance is maintained by heavy starching, of which sugar forms an important factor. A cheap *sari* can be woven in a week; a valuable one takes three or four months in weaving.

2. Baluchar *butedar* with *kalkas* or extra ornamentation only in the four corners, without an *anchla*. The prices vary from Rs 8 to Rs 40, the pieces are same size, and descriptions correspond to those of (1).

3. Shawls with ornaments only at the borders and corners, or all over the ground. The ground is of twilled pattern and white, the ornaments either white or ash coloured. They are made six cubits by three cubits, and the prices vary from Rs 40 to Rs 50, there being no inferior qualities in demand. These are woven by Dubraj alone. He would not set the loom for making shawls and scarfs for any one else. Dubraj has also woven shawls with religious texts in the place of ornaments, but he does not do it now, as the operation of weaving requires that the cloth-beam should be below the level of the navel, which is a sacrilege.

4. Scarfs [No. 5 (10)] are made in the same style as shawls, only much smaller. The quality is always the same, the price varying with the length, the width being one foot. Each square foot costs a rupee.

The products of the Moorshedabad *naksha* loom represent a class of Indian artistic fabrics inferior only to those made at Benares and Kashmir. The competition with Kashmir products does not affect the sale of Moorshedabad goods, as rich people who use wearing apparel made of shawl in the cold weather, use silks in the hot weather. But the competition with Benares gold embroidered *saris* affects the sale of Baluchar *butedars* most injuriously, as the Benares articles are not only better, but actually comparatively cheaper. Very decent Benares *saris* can be had for Rs 30 or Rs 40, although the price sometimes goes up to Rs 500 for a piece. A Hindu lady, if she can afford to use Benares *saris*, will not look at anything else on high days and holy days.

(II.) Silk Fabrics made with Ordinary Looms—

A.—Plain fabrics either white, unbleached or dyed—

a. Those made with reeled silk:—

5. Gown pieces.—The thread is of superior quality and properly twisted and bleached. Gown pieces are usually woven plain, but sometimes they are twilled [No. 1 (5)]. Occasionally the thread is dyed light blue. The dimensions are 10 yards by 42 or 45 inches. The price varies, according to quality, from Rs 14 to Rs 35. They are used by European ladies for making dresses, and by Bengalis for making coats, *chapkans*, *chogas*, &c.

6. *Korahs*.—This name applies to plain undyed silk pieces generally. The length varies from 5 yards to 50 yards. The quality varies very much, the width of 42 inches sometimes containing only 1000 warp threads, and sometimes as many as 2,400. The price is regulated chiefly by the number of threads in the warp. *Korah* properly means unbleached, although the pieces are usually washed and sized before they are exported. Unbleached thread, however, is often used, and the pieces are sent away sized, but not washed. The price varies from 8 annas to Re 1-8 per yard. The export of *korahs* increased for a few years, but this year it has fallen quite suddenly owing, it is said, to the altered condition of sterling exchange. Inferior *korahs* are used chiefly for lining purposes.

7. Handkerchiefs.—These are made either plain or bordered. The best Mirzapur handkerchief (2 feet by 2 feet) costs Re 1. Poor ones may be had at 4 annas (say, 6d.) each, and they are smaller.

8. *Alwans* or *chadders* worn double by Bengalis. These are made 6 yards long and 1⅓ yards wide, and are thicker than *korah* or gown-pieces. They are usually twilled. The demand for these is extremely limited, and the price varies from Rs 25 to Rs 35.

9. Plain white *dhotis* and *jors* (*i.e.*. *dhotis* and *chadders* to match, woven in the same pieces) have still a considerable sale in Bengal for ceremonial purposes. Parents on the marriage of their children, and high-class priests, wear *jors*, and plain silk *dhotis* are worn by widows. A *jor* usually costs about Rs 16, and a good *dhoti* about Rs 10. The length of a *dhoti* is 10 cubits, and of a *jor* 15 cubits, and the width 45 inches.

10. *Mekhlas*.—These are pieces of *korah* which are exported to Assam, and there made into ladies' skirts, and are generally embroidered with gold thread.

b. Those made with silk waste—

11. Plain *matkas*.—These are very coarse-looking stuffs, worn by elderly men and by widows among Maharattas and by poorer Bengalis. The length is 8 to 10 cubits and the width 40 to 45 inches, and the price varies from Rs 3 to Rs 5 per piece.

12. *Chadders* exported to Assam and made in the style of the Eria-silk *chadders* of Assam; also dyed *chadders* used to a small extent locally in this district. They cost Rs 4 or Rs 5 each.

B.—Striped fabrics—

13. *Rekhis* and ruled gown pieces [No. 1 (1)].—The latter are sometimes made to order, being "English looking." As the loom has to be specially arranged for this fabric, nothing less than 50 yards is available by special ordering. If 2,000 threads are used in the warp, the price of the 50 yards will be Rs 100, the width being 42 inches. It is possible to turn out almost any pattern from the Moorshedabad loom so long as Dubraj is alive, but of the more complicated patterns, at least 100 yards of the fabric must be ordered at one time, if a new pattern is desired. This is one difficulty in the way of improvement.

14. *Dharis*.—This is one of the standard patterns like the *rekhi, chaukara* and *matra* [No. 6 (11)]. The differences are only in colour. According to colour of the widest stripe, a *dhari* may be red, yellow, green, purple, or *banesh*—chocolate. They are made 10½ yards long and 42 inches wide, and are always of the same quality, being sold at Rs. 16 per piece. About 400 pieces are exported annually, chiefly to Arabia. Striped silk muslins, called *hawai durès*, also fall under this class [No. 1 (12)].

C.—Checked fabrics—

15.—*Chaukaras* [No. 1 (2).—These are also exported chiefly to Arabia, about 600 pieces annually. The dimensions are the same as in the case of *dharis*, and the price Rs. 17 - 14 per piece, except where the prevailing colour is purple, when the price is Rs. 18 - 5 per piece. A *chaukara* is red, yellow, green, purple or *banesh*, according to the colour of the squares which are most prominent, *i.e.*, where the web is made of warp and weft threads of the same colour.

16.—*Matras* are striped like *dharis*, but the stripes are studded with little squares, arranged in rows [No. 1 (3)]. The dimensions are the same as in 14 and 15, and the price Re. 1 more per piece than for *chaukaras*; the demand for the *matras* and the *rekhis* is very small, only about 30 pieces being made annually.

17. *Phulikat* handkerchiefs [No. 6 (13)].—These are also made of five colours besides dark blue, and they are made for export to Rangoon. The trade in this article is fast dying out. There are fifteen handkerchiefs to each piece, costing Rs. 19; the handkerchiefs are 1 yard square.

18. *Charkhanas* [No. 1 (4)].—These were made originally at Chandrakona and the neighbouring villages in Jehanabad, and not in this district at all. The silk industry, however, of Jehanabad has perished, and *charkhanas* are now made near Baluchar for the use of the Jain ladies of Baluchar and Azimgunge, among whom it is a favourite pattern. The pieces are made 40 inches wide, and the price is Re. 1 - 8 per yard.

19. Checked *matkas* [No. 6 (16) are coarse *saris* used by Mahratta women; they are made 8½ yards long and 45 inches wide, the price varying from Rs. 5 to Rs. 7 per *sari*. The trade in this, as in the other *matkas*, is considerable, and European imitation of the checked kind was attempted, as has been already mentioned.

D.—Bordered fabrics—

20. *Saris* [No. 2 (8)] with two or three borders lengthwise; these are more in favour with Bengali ladies than Baluchar *butedars*. The price varies from Rs. 10 to Rs. 18.

21. *Dhotis*.—These are made in the same style as *saris*, only the borders are narrower, and never three running lengthwise, as in No. 2 (8).

22. *Jors, i.e., dhotis* and *chadders* to match, woven in the same piece. Bordered *jors* have usually coloured grounds used for bridal purposes; the *cheli-sari* for a bride and the *cheli-jor* for a bridegroom are of superior quality, the former costing as much as Rs. 20, and the latter Rs. 25. But very inferior *chelis* are in high demand, as they are used on funeral and other occasions for making presents to Brahmans. *Chelis* are also used in Parsee religious ceremonials, and the cheapest *chelis* made in this district are made for the Parsees. They are in seven-yard pieces, and they cost only Re. 1 - 10 to Rs. 2 a-piece. When it is remembered that the material used is pure silk, the worthlessness of the stuff can be imagined.

24. *Reyias*.—These are made for Assam, and are sometimes embroidered with gold thread before they are sent away, or the embroidering is done after their arrival in Assam. They are used by Assamese women as upper garments. They are 4½ yards long and 22 inches wide, the two ends being ornamented with coloured borders.

25.. Handkerchiefs are also made with borders, as has been already mentioned.

26. *Matkas* are also made with coloured borders.

(III.) Printed Fabrics—

27. The art of printing *korahs* for making handkerchiefs, scarfs, and *namabalis*, or *chadders* containing religious texts, as in No. 7 (15) no longer exists in this district. Cotton printing is still practised to a small extent, and printed silk can be therefore still made to order. No. 7 (14*a* and 14*b*) represents handkerchiefs, the one made out of a very poor piece of *korah*, and the other of a better piece.

28. *Banhus* [No. 1 (7)] and *churis* or *matichurs* [No. 1 (6)] are made by tying strong knots at small distances according to the required pattern, and dyeing the pieces of *korahs* or *matkas*. The pieces are afterwards dried and washed, and the knots loosened. White spots or rings are formed at the points where the knots were made. If coloured spots or rings are desired, the strings with which the knots are made are first dyed in that particular colour before the tying of the knots The colour of the strings is imprinted on the cloth at the points where the knots are made. *Banhus* and *churis* are used in the North-Western Provinces and the Punjab for making skirts. Turbans are also made of these materials; there is consequently a large trade in them.

(IV.) Gold Embroidery.—

This is a domestic industry among the Jain ladies of Azimgunge and Baluchar, and the Mahomedan ladies of the city of Moorshedabad. There are a few professional embroiderers also, chiefly employed

at Baluchar in embroidering the *reyias* and *mekhlas* sent to Assam. The style of the embroidery may be judged from No. 8 (17), which represents a purse; the embroidery in this particular case happens to be on cotton. A piece of embroidered *reyia* or *mekhla* costs Rs. 40 or Rs. 50. The embroidery is not always done on Moorshedabad silk, nor necessarily even on silk. Velvet is oftener chosen for plain silk for this purpose, and velvet is an imported article.

There are thus altogether about thirty classes of silk fabrics manufactured in Moorshedabad. One, distinguished by its lightness—*hawai*—has been mentioned, but combinations of that term denote special fabrics under certain of the classes. Thus a very fine textured silk gauze made into a *chadder* is a *hawai chadder;* a very fine gauze made into a *sari* is a *hawai sari;* and so there are *hawai* pieces also, with which coats for summer wear are made. No. 1 (12) represents *hawai durè* or striped silk muslin, which is a favourite article for summer wear among the rich in Moorshedabad. Silk hose and *kamarbunds* (belts) used to be manufactured extensively in this district, but there are no weavers who can make them now. No. 1 (18) represents a fragment of a *kamarbund.*

V.—DYEING.

The colours chiefly used in the artistic fabrics of Moorshedabad are five—red, yellow, green, purple, and *banesh* or chocolate, besides white. There is, properly speaking, no black dye. What is called black is simply deep indigo or deep chocolate. To dye the silk black it is put several times in the indigo vat. Where the deep chocolate black is wanted (the border in No. 4), the silk thread is first dipped in a vat containing a mixture of *sajji* (crude sodium carbonate) and anatto. The thread so dyed with anatto colour is put in a vat containing lac dye. It is now dyed deep red. A third dyeing with indigo finishes the operation. Light colours generally are in rare use. although the cost of dyeing thread light is less than dyeing it deep.

Bleaching is done before dyeing except when anatto is used, when bleaching and dyeing are performed in the same operation by boiling the thread in a mixture of *sajji* and anatto. The bleaching is done by boiling the thread in water in which the ashes of banana trees and carbonate of soda are added. After about a quarter of an hour's boiling, the thread is washed thoroughly before putting it in a tepid solution of alum preparatory to dyeing, except when anatto is used, when no previous mordant is required. In the process of bleaching silk loses a quarter of its weight.

Green.—This is the only native dye in use in this district which is not fast. The fast green is known in other parts of India, but not in Moorshedabad. The thread taken out of alum is boiled in a decoction of *bakosh (Adhatodia Vasica),* to which a quantity of saw-dust of the jackwood *(Artocarpus integrifolia)* is added. The thread is then taken out and dried, and afterwards put in a solution of light indigo. Usually 24 ounces of bleached silk weighs 26 ounces when it is dyed. In the rainy weather when silk is dyed green it becomes heavier, *i.e.,* 24 ounces of bleached silk become 28 ounces. This difference does not occur in the case of the other dyes. To dye a seer of bleached silk green costs Re. 1 - 2.

Yellow.—The bleached thread prepared with alum is put in a solution of orange-peel dust. Saw-dust of *bakam (Cœsalpina Sappan)* wood is sometimes added. Unbleached thread is put in a solution made with *sajji* and anatto and boiled, and then washed. No alum is used in these. The bleached silk is put in a solution made with *lodh (Symplocos racemosa)* wood and boiled, a little anatto dust being added to the mixture. These three processes produce three different shades of yellow, none of which is pure yellow. The cost in every case is 8 annas per seer.

Purple.—The thread prepared with alum is put in lac dye, and afterwards in a solution of indigo. The lac dye used is weak, dyeing the thread light red costing 6 annas per seer, and the subsequent blueing 17 annas per seer.

Blue.—Blue colour is rarely employed, as it costs Rs. 2 per seer to dye blue, indigo being the costliest dye in use. Very deep indigo, called black, costs still more, as it requires two, three or more successive dyeings in the indigo vat.

Banesh or chocolate.—The thread prepared with alum is put in lac dye, which then becomes red. The thread so dyed is put in a weak solution of indigo. This costs 17 annas per seer of bleached silk.

Pink is simply light red, and dyeing of bleached silk pink costs 12 annas per seer.

Red.—The thread prepared with alum is first dyed with lac, and subsequently dyed with turmeric. This also costs Re. 1 - 4 per seer, like green.

The use of bright but fugitive aniline colours has become the rule in most weaving establishments in this district, as the demand is growing for cheap and bright-looking articles. The addition of sugar with the sizing also improves the look at the sacrifice of the silk fibres.

VI.—WEAVING AND ITS SUBSIDIARY OPERATIONS.

The tools and appliances used in sorting and twisting thread and in weaving are of the cheapest description, the whole set costing less than Rs. 10. Weaving being entirely confined to the poor, the appliances in use are most appropriate, the introduction of power looms and machinery of complicated and expensive nature being beyond the means of native weavers. One serious objection to the introduction of power-looms, even in the case of plain, striped, or checked piece-goods, is the unevenness of the Bengal raw silk. The raw silk used by weavers is again particularly uneven, being reeled in the native fashion. The use of this silk is resorted to on account of its cheapness, the native reeled raw being Rs. 8 or Rs. 9 per seer, when the filature reeled raw is Rs. 12. Even for making high-priced articles, not only in Moorshedabad, but also in Benares, cheap raw silk is employed. The subsequent sorting of the thread, which costs 8 annas per seer, helps to make the thread look fairly even, but this evenness is insufficient for mechanical throwsting and weaving. In addition to the two-fold advantage of little outlay and possibility of using a cheaper material without any corresponding disadvantage, there is the third advantage of cheap labour, which makes the introduction of machinery, for the artistic fabrics at least, quite superfluous. The introduction of the Jacquard loom will no doubt do away with the "draw-boy," but the "draw-boy" in Moorshedabad is paid only Rs. 4 a month, while even with the Jacquard loom artistic fabrics cannot be

woven very much faster than with the Naksha loom of Moorshedabad. Where real art is required, even with the Jacquard loom, the French weaver cannot produce cheap articles to meet the popular demand, and a parallel state of affairs to that which prevails in this country, and which M. Jonnart, in his recent report on the crisis through which the silk trade in France is at present passing, forcibly styles the "democratisation de l'etoffe de soie," is the cause of the decline of the French artistic fabrics of silk. The introduction of power looms in this country for plain piece-goods will have to be done if our weavers have to compete with foreigners as they are doing, but it will have to be preceded by the introduction of the annual cocoons and of better processes of reeling; but for artistic fabrics the Jacquard loom will be found superfluous in a country where labour is so cheap.

Sorting or "Pheran."—Delicacy of touch is the only criterion employed in sorting the raw or dyed silk, according to the thickness of the thread at different parts. The skein of raw or dyed silk is put loosely round a bamboo cage-like arrangement variously called *polti*, *nata*, or *chorki*. The end is found out by the person employed in sorting, generally a woman or a boy, and attached to another cage-like arrangement called the *latai*, and the *latai* twirled round and round with one hand while the thread passes through the fingers of the other hand. Whenever a thread of a different thickness is perceived, it is gathered on to another *latai*. Three or four *latais* are used, according to the carefulness with which the sorting is done. To enable the *polti* to turn round and round on its axis while the thread is worked off on to the *latais*, it is loosely planted in a hole made in the floor or on a brick.

Twisting.—This is also performed with a very inexpensive arrangement, but the operation costs Rs. 2 for every seer of silk twisted. Here one may suppose the introduction of throwsting machinery may prove useful. But the unevenness of the raw silk used is a fatal objection to this. Even the filature reeled Bengal raw is found an objectionable article in European throwsting establishments. Four persons are employed in twisting a seer of silk for a whole day, one giving twist to the ends of the threads hanging before him by rubbing the sticks of the *takurs*, or weights attached to these ends, successively between his palms; the second and third persons are employed in walking up and down with the ends of the twisted threads towards the person who is engaged in gathering the twisted thread on to a *latai*. One, two, or more threads are twisted together, according to the purpose for which they are required. The *dol* is made of little U-shaped pieces of cane tied to a long horizontal piece of cane or bamboo which rerts on two posts. Each of the *thhaks* consists of two horizontal pieces of bamboo, 9 inches apart, resting on posts fixed to the ground, a number of glass rings being tied to the horizontal pieces. The untwisted thread from the *latai* passes along the iron guide called the *loibangri khunti*, and is carried up to the first U of the *dol*, from which it is passed through the first glass rings of the top bamboo pieces of the *thhaks*, and is brought back through the first glass rings of the bottom bamboo pieces of the *thhaks* to the second U, where it is broken and tied to a *takur*. Other pieces of thread are similarly passed through the other U's of the *dols* and the rings of the *thhaks*, and their free ends attached to *takurs*. The man twisting the threads judges by the height to which the *takurs* have ascended (*i.e.*, by the shortening of the threads by twisting) whether he has twisted enough.

Twisted thread is used only for the warp, and never for the weft. Even for the warp untwisted thread is used for cheap articles.

Warping.—According to the quality of the stuff, 1,000, 1,200, 1,500, 1,800, 2,000, 2,200, or 2,400 threads are arranged side by side on the warp. The length of the warp is, as a rule, 50 to 100 yards, so that 5, 10, or 20 pieces of the same pattern may be turned out without disturbing the loom, one after another. The alternate threads are separated in the warp in the manner illustrated in fig. 2, page 64, of the "Textile Manufactures and the Costumes of the People of India," by Forbes Watson, M.A., M.D., F.R.A.S., &c., 1866. The threads are discharged from *latais* and adjusted by means of sticks, each ending in a little glass ring firmly fixed to the end of the stick. For Baluchar *butedar* and for plain piece-goods of the same colour, the warping is easily done, threads of the same colour being used. For *saris* and *dhotis* with borders, and for striped and checked fabrics, the threads are arranged according to the different colours required, and to secure the "lease" or plane of separation of the different coloured threads, smooth bamboo laths are used, which cross the warp at different intervals. The warp is wound round on to the yarn beam along with these laths. For checked patterns, such as *chaukara*, where threads of five or six colours are used, as many as 200 *joas* or laths are used for each *tana* or warp. The laths are used for plain fabrics—also to keep the two sets of threads for the two *baws* or "healds" distinct throughout their length.

Charging of Spools.—Sorting of raw, bleached or dyed silk is done for the weft also, the sorted thread being gathered in *latais*. Two or more threads of raw, bleached, or dyed silk are used without any twist for the weft. The *nolis* or spools are charged with the weft threads with the help of a *charka* or wheel. The wheel turns an iron rod (to the ends of which the *nolis* are attached) very fast by means of a piece of twine which is put round the wheel and the middle part of the rod. To keep the thread in its position, it is made to pass through the groove of an upright piece of wood placed in front of and between the pivots on which the iron rod is placed. As the wheel is turned and the spools spin round and round, the *latais* become gradually discharged on to successive apools.

Weaving with "Healds" only.—When the warp is got ready on the beam and the spools are charged, weaving operations commence. The threads of the warp are first successively passed through the dents of the "reed" or *sanha* and tied to another beam in lumps according to the different colours of the threads. When the warp is thus stretched between the two beams, the reed-frame or *dakti* being suspended between, the "healds" are arranged. Every time the loom is adjusted "healds" have to be made. A "heald" or *baw* consists of a slender stick (*shir*) and a thicker stick (*dangi*) at the top arranged side by side, and a thicker stick (*dangi*), a slender stick (*shir*) and a batten of wood (*jutthas*) at the bottom. Between these two sets of sticks a cord is arranged in loops crossed in the middle where the particular threads of the warp meant for this particular heald are made to lie. In other words, the cord of the heald is made to pass successively through the proper threads, the cord being fastened at each passage through the warp to the top or the bottom sticks. Passing the warp

through the reed and making the healds take up such time, that when there is a considerable demand for a particular fabric, the loom is never made to be without warp, other threads being tied to the ends of the old threads at the yarn beam, and the weaving continued without disturbing the arrangements of the healds and the reed. When the threads of the warp are of the same colour, only two healds are used as a rule, so that the alternate threads of the warp may be raised and the others depressed, and a "shed" formed for the conveyance of the shuttle carrying a spool. In weaving Baluchar *butedar*, however, where also the warp is of one colour, four healds are used, as a rule, to effect a cleaner separation of the alternate threads. The difference of colour in the border arises, in the case of the Baluchar *butedar*, from the use of different coloured weft threads, whereas, in the case of *saris* and *dhotis*, the difference of colour in the border is in the warp, thread of the same colour being used for the weft. In making checked patterns the warp is made of threads of different colours, and more than one shuttle also is used for putting different coloured threads in the weft.

The general arrangement of the looms used in Moorshedabad for making plain fabrics, checkered patterns, *dhotis* and *saris* with or without borders, is very like that of hand-looms used in any other country. The whole framework is rectangular, about 6 feet long and 4 feet wide, and it consists of the following parts:—

1. Four *khuntis* or upright posts a yard high fixed in the ground at the four corners of the loom.
2. Two *kol-khuntis* or short posts, about 2 inches high, placed just in front of the near *khuntis*, which are the pivots for the cloth-beam.
3. The *kol-naroj* or cloth-beam is placed on the *kol-khuntis*. To it is attached a bamboo lever which helps to stretch the warp, this lever being fastened with a rope to the *bishkarmar khunti*.
4. The *bishkarmar khunti* is an iron hook fixed in the ground. At this spot is the Art-god Bishwakarmar (literally, the architect of the universe) worshipped by the weaver with great ceremony once a year, and daily he bows down before this hook in commencing the day's work.
5. Two *bahus* or shafts placed lengthwise on the four *khuntis*, on which are placed loosely the *thala-bajus* or *chala-bajus*, *i.e.*, moving battens.
6. From these battens are suspended the *dokti*, or the reed-frame, and the pulleys to which the *baws* are attached.
7. The *dokti*, or reed-frame, consists of two battens, between the grooves of which lie the "reed" or *shana*. The dents of the *shana* are actually made of the common reed. There are 1,000, 1,200, 1,500, 1,800, 2,000, 2,200, or 2,400 dents according to the quality of the fabric intended to be made. As the cloth is woven, the *dokti* is further and further removed along with the *thala-bajus* until the weaver finds it inconvenient to reach the "shed." To the yarn-beam is fixed an iron lever, which is worked to loosen the warp. The bamboo lever of the cloth-beam is then worked to take up the cloth that has been woven, the lever re-attached to the *bishkarmar khunti*, and the weaving is continued, the *thala-bajus* with the *dokti* being brought closer to the weaver.
8. The *bahir naroj*, warp or yarn-beam, is suspended with two two ropes tied to the top of the off posts, being about 6 inches above ground and beyond the off posts, but resting against them.
9. The *pasha-nardi*, or treadles, which are attached to the healds with ropes crossing each other as they go up, are situated under ground, so that the weaver sitting on the ground can reach the treadles with his feet. It requires a good deal of practice to work the healds with the treadles. The toes of the weaver are alone used in this operation. The healds containing threads of a particular colour have to be put up and others lowered. The weaver knows the particular treadles which have to be worked with his toes to bring this about. The treadles are simply bamboo sticks fixed at one end and free at the other, to the middle of which are attached the strings which work the healds. The long fulcrum *(garkhile)* to which the treadles are successively attached is placed between two wooden pivots, called *garkhas*, fixed to the bottom of the pit. On the other end of the pit, between the free ends of the treadles, are a number of upright bamboo sticks called *barkathis*, which keep the treadles from interfering with one another.
10. The *katani* is a bow-shaped bamboo stick with a pin at each end, which keeps the cloth stretched breadthwise as it is woven, the pins being fixed to the "selvages."
11. When the weaving of a piece is finished, a blunt knife almost as broad as it is long, called *shipi*, is worked breadthwise to and fro on the top or reverse side of the piece. This is done to make the cloth more homogenous and look thicker.

SIZING.—A thin paste made of parched rice is then put on the same side of the piece and worked in with the *shipi* to give a sizing to the stuff. The addition of sugar to the size has already been mentioned. Sizing is also practised to make some of the stuffs heavier. The weavers themselves are opposed to weighting, as the local sale even of piece-goods is all conducted on three principles:—(1) According to the number of the threads in the warp, which are actually counted by dealers; (2) by the length of the stuff, and (3) by the regularity and other excellence of the web. Dealers in Calcutta, however, who buy certain qualities of piece-goods, such as *dharis* and *chaukaras*, require that the pieces should be of certain weights. An unsized piece of *chaukara*, for instance, 10 yards long and 42 inches wide, weighs, if the piece is of good quality (2,000 *shanas*), about 10 ounces exactly. The Calcutta dealers, however, want that this particular quality should weigh 12½ ounces per piece. Very much inferior stuffs, such, for instance, as weigh 7 ounces a-piece unsized, are made, as a rule, to weigh likewise 12½ ounces, for the benefit not of the weavers, but of dealers who trade with other countries or other parts of India, or with buyers who judge a piece by its touch and look.

WEAVING WITH "NAKSHA" LOOMS.—The arrangement of the loom used for making Baluchar *butedars*, shawls, and scarfs is somewhat different. The cloth-beam is placed on two pillars or platforms, the weaver sitting on a plank resting on the same pillar alongside the cloth-beam, his legs going between, and his feet working the treadles which are fixed in the floor at one end in the same manner as the treadles are fixed in the pit in the case of the ordinary loom. The warp-beam is also placed on the floor, being slightly elevated with two pivots. Thus

the warp runs up in a slant from the warp-beam to the cloth-beam, instead of horizontally, as is the case of the ordinary loom. The use of four healds where two only is essentially necessary, has been already mentioned. The essential peculiarity of this loom is in the presence of the *shirak*, or a large number of strong twines running across and above the warp just beyond the healds. Each of these twines is attached below to certain number of threads in the warp by means of long loops of strong thread suspended vertically from the twines and allowing one, two or more warp threads to pass through each, according to the figure intended to be brought out. Above the twines are attached two *nakshas* or sets of harness cords, which the draw-boy sitting beyond the twines on an elevated platform manipulates, and brings up each time a number of twines, which in their turn raise, by means of the loops, the required thread of the warp. To make the "sheds" on this side the reed distinct, two *nanglis*, or plough-shaped wooden wedges suspended from the ceiling by ropes, are thrust in by the weaver among the twines. He then passes the little sticks called *shirkis* [not "spools" put in shuttles] charged with coloured weft threads through the "sheds," along the whole width of the piece, corresponding to the different *buts* or figures. When the coloured threads for the *buts* have been once passed, the *nanglis* are withdrawn while the reed is pressed home to the web, the treadles worked, and the shuttle passed once to lay one thread of the ground weft. The reed is again worked, and then the draw-boy manipulates the cords of the *nakshas* which govern the elevation of the warp for the two borders only. The *nanglis* are again thrust in to bring the two sheds on the two sides (for the borders) distinctly up, and then the two sticks with coloured threads meant for the two borders are passed through the sheds once. Another weft thread for the ground is then put in with the shuttle. These three sets of operations go on throughout the weaving. As a rule, there are two *nakshas* for the borders, two for the *buts*, two for the *anchla* or the ornamental end piece, and one for the beginning and finishing up. The draw-boy manipulates a "harness cord" for the *buts*, the weaver puts in a thread for the *buts*. At the next operation, viz., the putting in of a weft thread for the ground, the draw-boy does nothing; then the draw-boy manipulates a harness cord for the border, while the weaver puts in a thread for the border. At the next operation again the draw-boy does nothing, while the weaver passes the shuttle to put in another weft thread for the ground. At each operation, therefore, time is spent by the weaver not only in his own manipulations, but also in watching those of the boy. For richer designs as many as fourteen *nakshas* are sometimes employed. It is easy, therefore, to imagine how a piece 5 yards long and 42 inches wide can take as long as six months for a weaver and his boy to weave, beginning at the adjusting of the loom and ending in the completion of the first piece, for even in the case of the figured patterns 5, 10, and sometimes 20 pieces are turned out before allowing a readjustment of the loom.

NOTES ON AN AHMEDABAD CARVED SCREEN AND BRACKET.

By Mr. HENRY E. M. JAMES, Bo.C.S.

At page 127 of Volume I. of this Journal, a short allusion was made to the wood-carvers of Gujarat, in Western India, and illustrations were given of a portion of the Baroda screen at the Colonial and Indian Exhibition, as well as of a beautiful carved pigeon house from Baroda. We now produce specimens of modern carving, executed at Ahmedabad, the capital of Gujarat, for Mr. H. E. M. James, Commissioner Northern Division of the Presidency of Bombay, from whom we have received the following interesting notes on the subject :—

Wood-carving in Gujarat has been practised by the Hindus from time immemorial, and the suggestion in the *Journal of Indian Art* (Mr. B. A. Gupte, No. 16), that it was developed from the Buddhist art of carving in stone during the time of Moslem supremacy, seems scarcely tenable. Wood-carving, even amongst the Buddhists, always preceded stone, and the original wooden beams in the magnificent cave-temple at Karli, are found copied into stone in temples of a later date. It surely is a law of mankind that they should evolve the more difficult art from work done in easier materials. Undoubtedly, during the time of Mahomedan rule, the art of the Hindu stone-cutter was utilised for the decoration of mosques, and the familiar ornaments of the cypress tree, the rose-water vase, and even the *kalam-dan*, or pen-holder, to be seen on every mosque in Gujarat, very probably have been reproduced later, even in purely Hindu buildings. But there are hundreds and thousands of carved houses in Gujarat, ancient as well as modern, in which the ornamentation is pure Hindu. Carving in that part of the country seems a born instinct, even with the lowest carpenter, and in the remotest villages. Whenever the local money-lender rebuilds his house, even on the cheapest specification, charming little bits of carved pillars and capitals in the verandah of the lower story and balconies and jalousies above, are inserted by the village artizans as a matter of course. The more wealthy banker adorns the whole frontage of his house with carved panels of teak or blackwood, a specimen of which has, I believe, been placed in the South Kensington Museum by Mr. C. Purdon Clarke.

The screen on No. 9 was made for me by Chaku Buddhar of Panchpatti, near the Ka'lupur Gate in Ahmedabad, and its construction was in this wise. In the neighbouring town of Kaira stands a house erected not more than sixty years ago by the regimental *bunnya*, that is to say, the soldiers' and Sepoys' money-lender, from gains effected during the short term of years that Kaira was a military station. The house is now dilapidated and for sale, but the wealth of carving that was lavished on it still forms one of the sights of the town. In this house, along one side of a passage leading out of the central courtyard, stands the private chapel of the owner, the altar now, alas! reft of its image. The design of the wooden panels on the outside of this chapel appeared to me very pleasing, as well as different from any I had seen elsewhere, and I felt inclined to buy the façade in its entirety. But new work would have been needed to fit the old, now black with age, into another house, and the tearing of the old panels away from the wall seemed to me like sacrilege. But I liked the design so much that, being in need of a screen, I employed Chaku, who had hitherto been known to me only as a skilful repairer of tables and chairs, to go down and copy one panel. Next I asked him to plan a suitable frame to enclose it; so he returned to Kaira, and after studying the entrance door and pillars of the temple, brought me the design which is here reproduced. Ganpatti and the two attendant gods in the upper part, the elephants at the base, and the panels are copies. The rest of the details and the arrangement of the whole are entirely the artist's own. Chaku himself proposed to mount the screen with an arch containing images of more gods, something like the apex of the bracket (*vide* No. 11), but I thought that that would make the screen not only too expensive, but too high for my purpose, so he substituted a railing with little gods at each division. My original intention was to have the back of the screen quite plain; but as even the thickest and most seasoned teak is apt to warp in the dry season, I added a strong backing of teak bars, which I allowed him to carve at his discretion, and which, though it added slightly to the cost, made the rear, as well as the front, presentable.

By far the best grained teak for carving purposes is not, in the Ahmedabad artist's idea, that from Moulmein or Kanara. He prefers teak grown in the rugged forests of his own Gujarat, procured from the hilly country called the Dangs, between Surat and Khandesh. This wood, at any rate in large scantling, is now very rare. Chaku proceeded to Balsar near Surat, and selected a log warranted to have been lying there for five years. This he sawed into planks, and then commenced his work, aided by a little crowd of his nephews and cousins. The greater part of the carving was done with a hammer and sharp-pointed chisel, wielded by mere boys, the knife being called into requisition only for the finest portions of the figures. The entire work took about seven months to complete, during which time it was a source of great interest to visit the factory. Chaku's house is situated in a narrow, evil-smelling alley, and the workshop was a little bare, dimly-lighted loft, the approach to which was through the lower room, past the horns of a motherly but ferocious cow, which, with its calf, was there tethered, and then up a perpendicular ladder, terminating in a trap door. Here the patient carvers worked, sitting or squatting on the floor, the only sight to cheer their eyes when they looked up being some English tailor's fashion plates, with which Chaku had decorated his walls.

Of the merits of the screen as a work of art I must leave others to judge. To me its most worthy feature is its thorough solidity and genuineness. There is no veneer or glue in it. The carving is not superficial, like so much of the North-West Province work, but deep, strong and clean to the bottom. At the same time the delicacy and lace-like texture of some of the details strike me as being remarkably beautiful. Only a few small ornaments are separate from the main structure, fastened on to it by screws or wooden pegs. The angels, for instance, I can call them nothing less, which are copied from the winged figures that support the cornice in the main court-yard of the house at Kaira, are separate. (One might think they were taken from some ancient British officer's tombstone, but they are to be found in all Jain and many Hindu sanctuaries). The figures against the top rail were also added later, at Chaku's request. But the elephants, the base, the panels, the central door, the pillars, the cornice, the lintel, and the top rail, are all solid pieces of teak, fitted one into another. I have little doubt that had I given Chaku *carte-blanche*, a still more beautiful screen might have been made. But I chose the

—*Matras* (old and new styles). 4 (*a*, *b*, *c*, *d*, & *e*).—

6. *Churi* 7—*Banhu* 12—*Hawai duré* —Belting net.

design with the least projecting ornament, as likely to travel better. In this respect it has fully answered my expectations, for the screen was sent from Ahmedabad to Karachi by rail and steamer, packed up in three cases, and though invoiced as cargo, and transhipped several times, it suffered no damage on the voyage worth mentioning.

For the encouragement of the art, I should be very glad to be the intermediary between Chaku and any patron of wood-carving, who would like to order anything of the kind, and to send home patterns for him to choose from. Chaku makes beautiful photograph frames for the table at ₨16 each, in teak or blackwood (the latter is a little more expensive), inkstands, and other table ornaments. A large screen like mine may cost anything from ₨500 to ₨1500. Chaku will also make furniture, simple and solid, but that can be obtained at home. A mere working carpenter, and not a capitalist, he would require advances of money from time to time, to pay his workmen, and I would gladly undertake to dole out to him such advances, if anyone chose to send them. I can guarantee that he would turn out good work, and for cost price.

The bracket (No. 11) is from the workshop of a capitalist firm, the celebrated Brothers Hatesingh, whose father built the well-known and magnificent Jain temple outside the Delhi Gate at Ahmedabad, at a cost of 25 lakhs of rupees. These gentlemen employ carvers of their own, and their fabrics are therefore more expensive than Chaku's. But their work is first-class, and they have received many medals at International Exhibitions. Messrs. Hatesingh have turned out a great deal of work for American millionaires, and show photographs of suites of rooms, in which the doors and doorways, furniture, cornices, &c., consist entirely of Ahmedabad carving. The bracket is scarcely done justice to by the photograph, which could not reproduce at a distance the finest and most exquisite bits of detail. With a rose-coloured fairy lamp placed in the shelf, the effect of the bracket is as pleasing at night as in the daytime.

Messrs. Hatesingh have turned out a good deal of carpentry work for the new Palace of the Gaekwar at Baroda. They have also a carpet-weaving factory, where are manufactured the most sumptuous but at the same time the most expensive fabrics that can be imagined, none of which are available for the English public, as all are bespoken for America. Their deep, soft pile is made of wool selected in Ahmedabad, and dyed on the premises solely with vegetable dyes. Some of the designs are copied from old Bijapur and Persian examples, but an old Hindu in the employ of the firm can prepare patterns, intricate to a degree, and quite equal to any of the best mediæval work. The colours, the soft greys, the delicate blues, and old yellows and browns are perfection. The British Raj is popularly supposed by Sir George Birdwood and others to have ruined Indian taste. In the case of the Ahmedabad carpets, the truth is exactly the reverse. The carpet factory was started by the firm on a small scale at first, entirely by convict boys taught in an English reformatory, and by men trained in English jails. When warned that the Americans required antique Eastern designs, and that any modern and Western copies would be rejected, the natural good sense and self-interest of the Hindu prevailed. Except for this caution, the carpets would have been disfigured by emerald green parrots, bright yellow tigers, scarlet hibiscus flowers, and all the glories of aniline. The modern Hindu, when left to himself, prefers bright crude mineral dyes to the soft colours which suited his ancestors, and suited them for the best of reasons, viz., that they were the only colours then to be obtained.

In the article at page 128 of Vol. I. of this journal, the writer remarks :—'The carving of the screen and the pigeon house has done great credit to the Patan carvers in advertising their skill, and we shall not be surprised to see a great demand created in this country for carved furniture or mantel-pieces.'

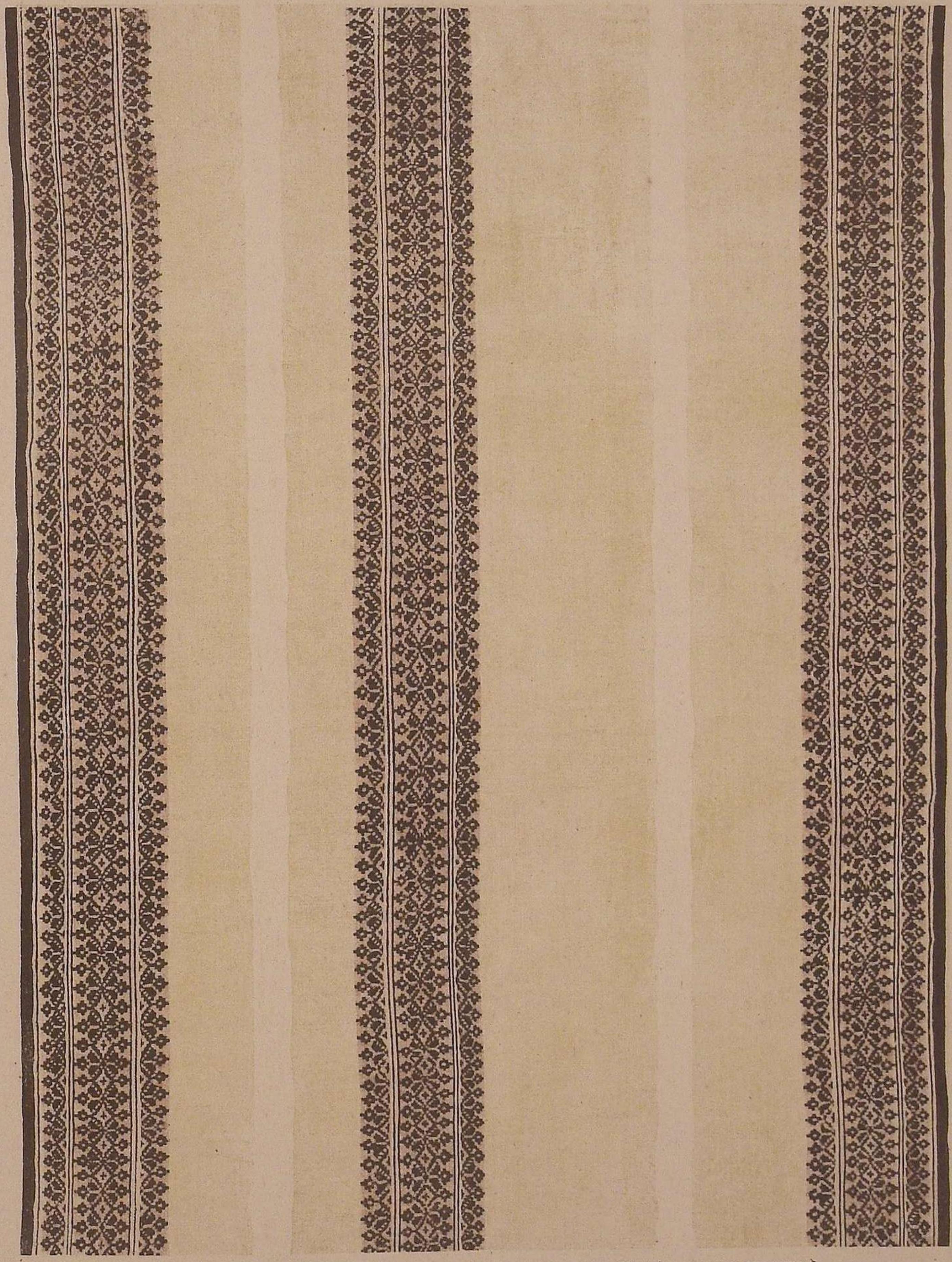
This hope has proved illusive. Americans, as already remarked, are the only foreigners who patronize Gujarat carving. Would that Mr. Blundell Maple, M.P., or some of our great furniture purveyors in England, would shew equal enterprise. English people in India prefer English furniture, which reminds them of their home beyond the seas, just as they strive to grow violets and La France roses rather than tuberoses and *champahs*; and Mr. Wimbridge in Bombay has of late years completely driven the old heavy blackwood carved furniture out of the field, in favour of English 'high art' designs, which are prettier, lighter and better suited to a hot climate; but if Mr. Maple would send a designer of furniture out to Ahmedabad, to stay for six months, and instruct the local carpenters how to adapt their art to English furniture and mantel-pieces, I feel sure that he would return loaded with valuable spoil. Such furniture exhibited in a London show-room, might soon become the fashion, and the English capitalists and the humble carpenters of Ahmedabad would profit alike. Whoever is first in the field has a great opening before him.

I am indebted for the photographs to the kindness of Mr. R. N. Coghlan, the Collector of Customs at Karachi.

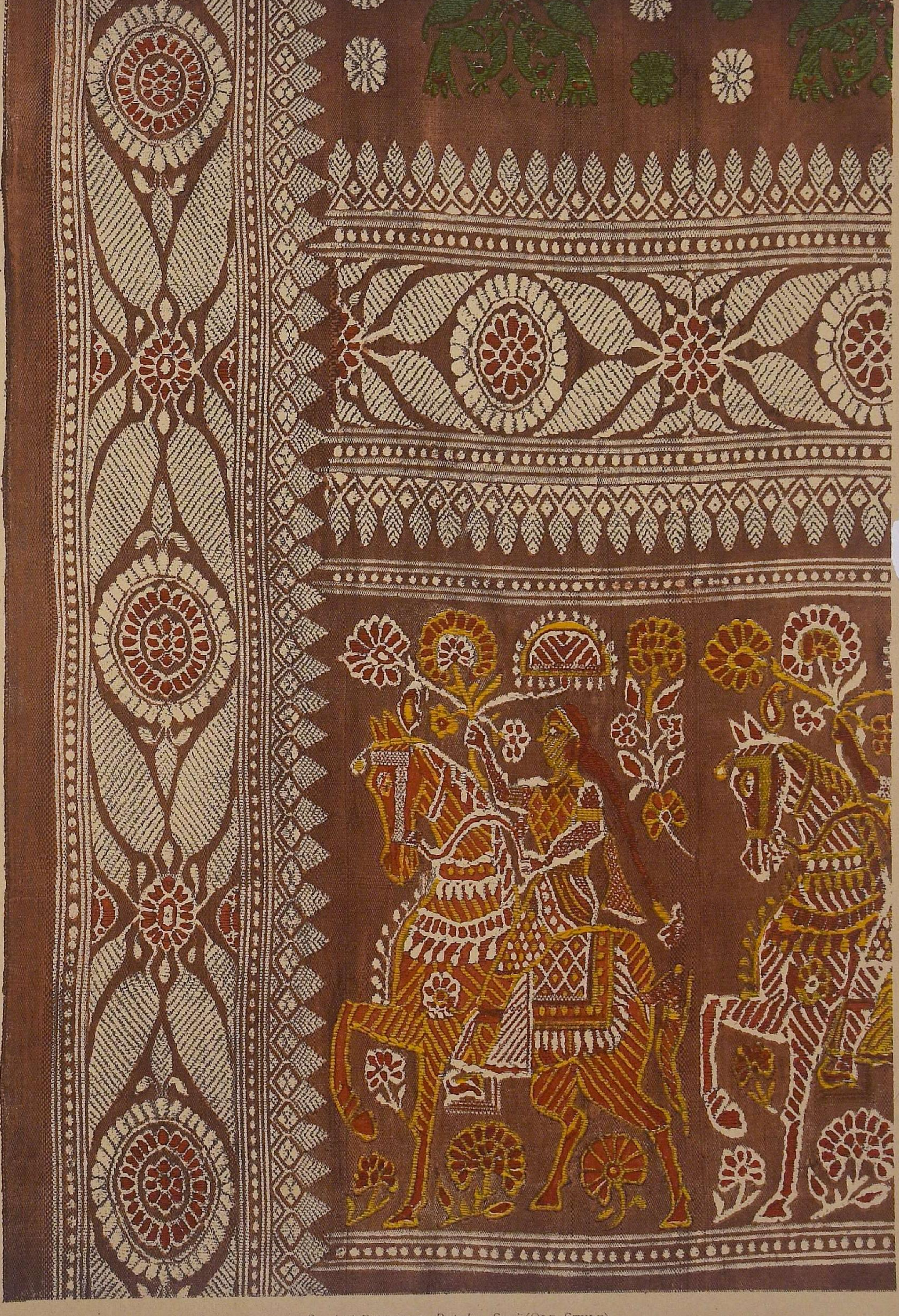
LIST OF ILLUSTRATIONS.

THE SILK INDUSTRIES OF MOORSHEDABAD.—1.—*Rekhis* (old and new styles), *Chaukara*, *Matras* (old and new styles), *Charkhanas*, Twilled gown piece, *Churi*, *Banhu*, *Hawai duré*, and Belting Net. 2.—*Sari* with three borders, Mirzapur silk. 3.—Baluchar *Butedar Sari* (old style) 4.—Baluchar *Butedar Sari* (new style). 5.—Baluchar Scarf. 6.—*Dhari*, *Phulikat* Handkerchief, and Checked *Matkas*. 7.—Printed Handkerchief and *Namabalis*. 8.—Gold Embroidered Purse and three Skeins of Dyed Silk. NOTES ON AN AHMEDABAD CARVED SCREEN AND BRACKET.—9.—Screen. 10.—Details of Screen. 11.—Bracket and Enlarged Detail.

1.—1 (*a* & *b*).—*Rekhis* (old and new styles). 2.—*Chaukara*. 3 (*a* & *b*).—*Matras* (old and new styles). 4 (*a*, *b*, *c*, *d*, & *e*).—*Charkhanas*. 5.—Twilled gown piece. 6.—*Churi*. 7.—*Banhu*. 12.—*Hawai durē*. 18.—Belting net.



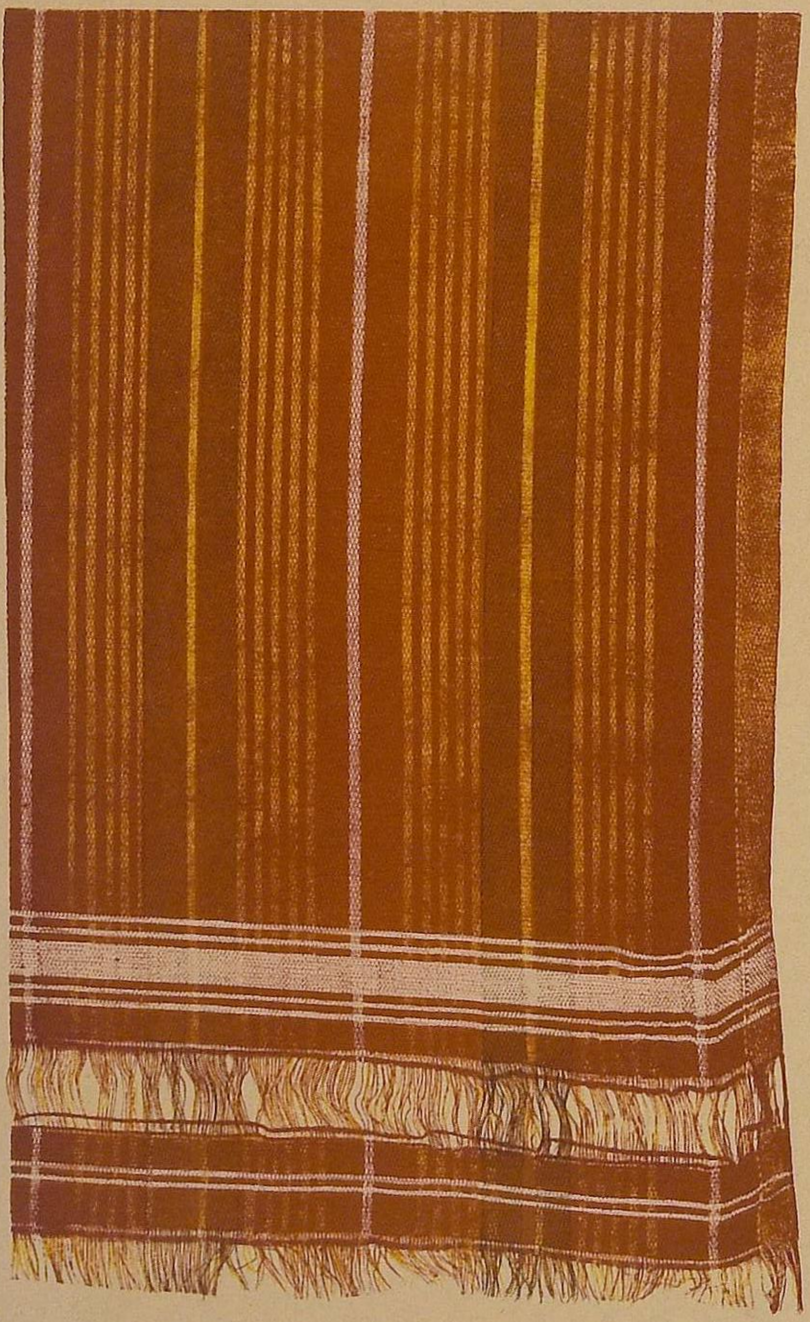
2.--(8) *Sari* WITH THREE BORDERS, MIRZAPUR SILK



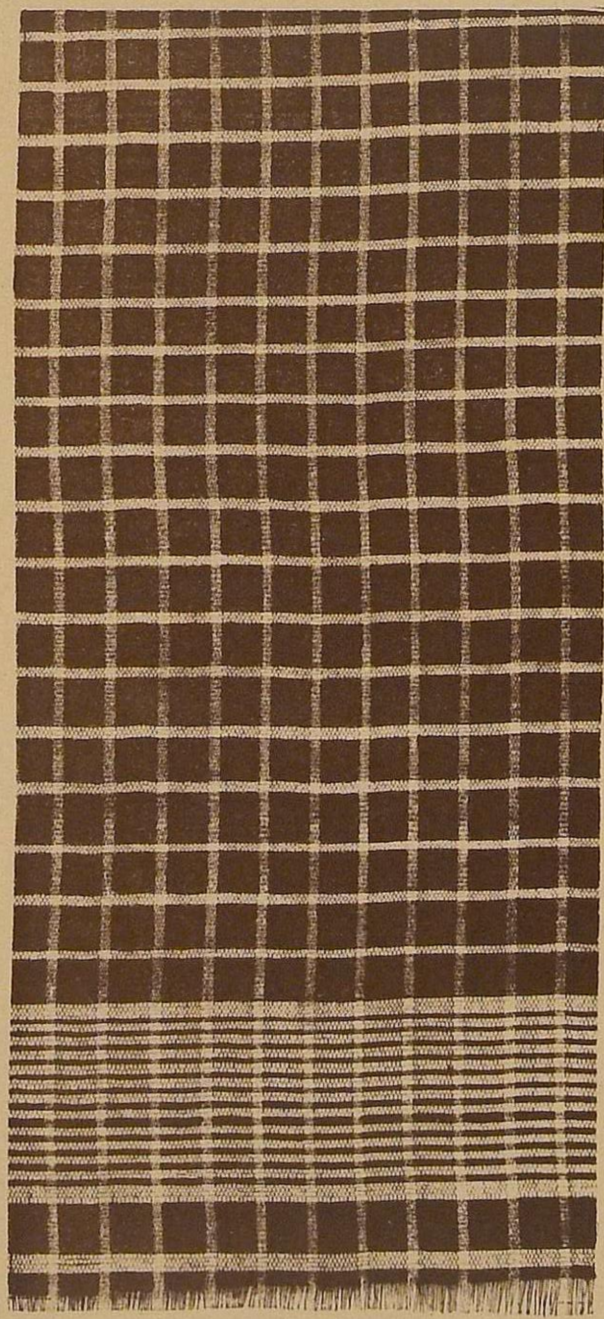
3.—(9a) BALUCHAR *Butedar Sari* (OLD STYLE).

4.—(9b) BALUCHAR *Butedar Sari* (NEW STYLE).

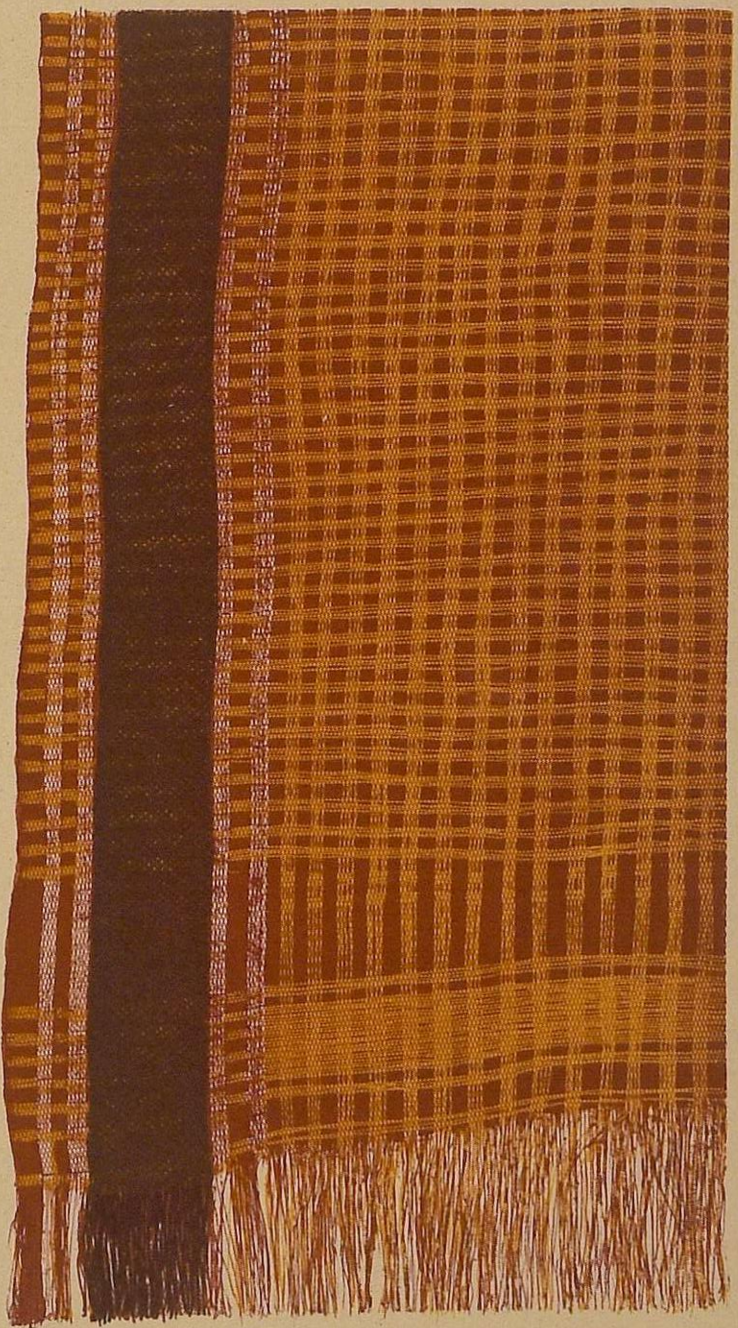
5.—(10) Baluchar Scarf.



11



13



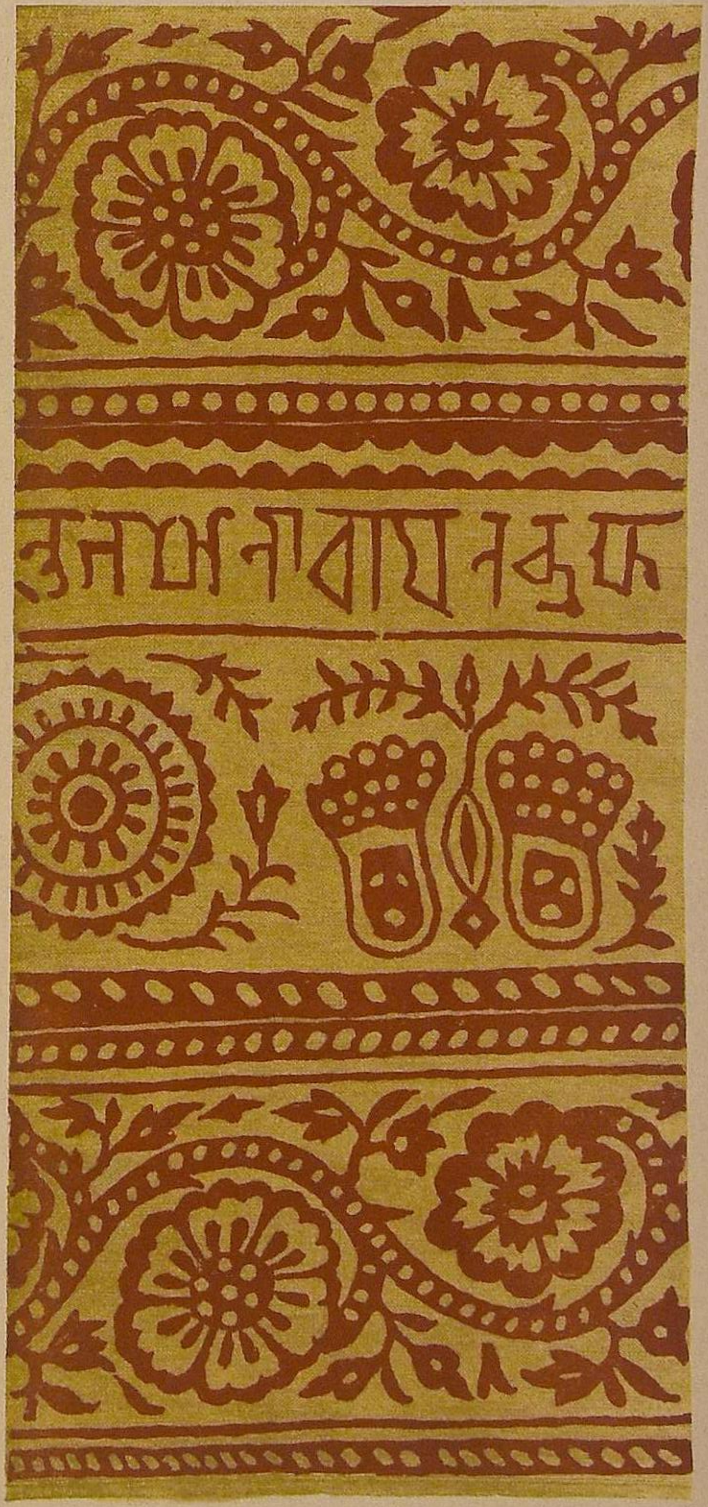
16

6.—(11) *Dhari.* (13) *Phulikat* HANDKERCHIEF. (16) CHECKED *Matkas.*

14a

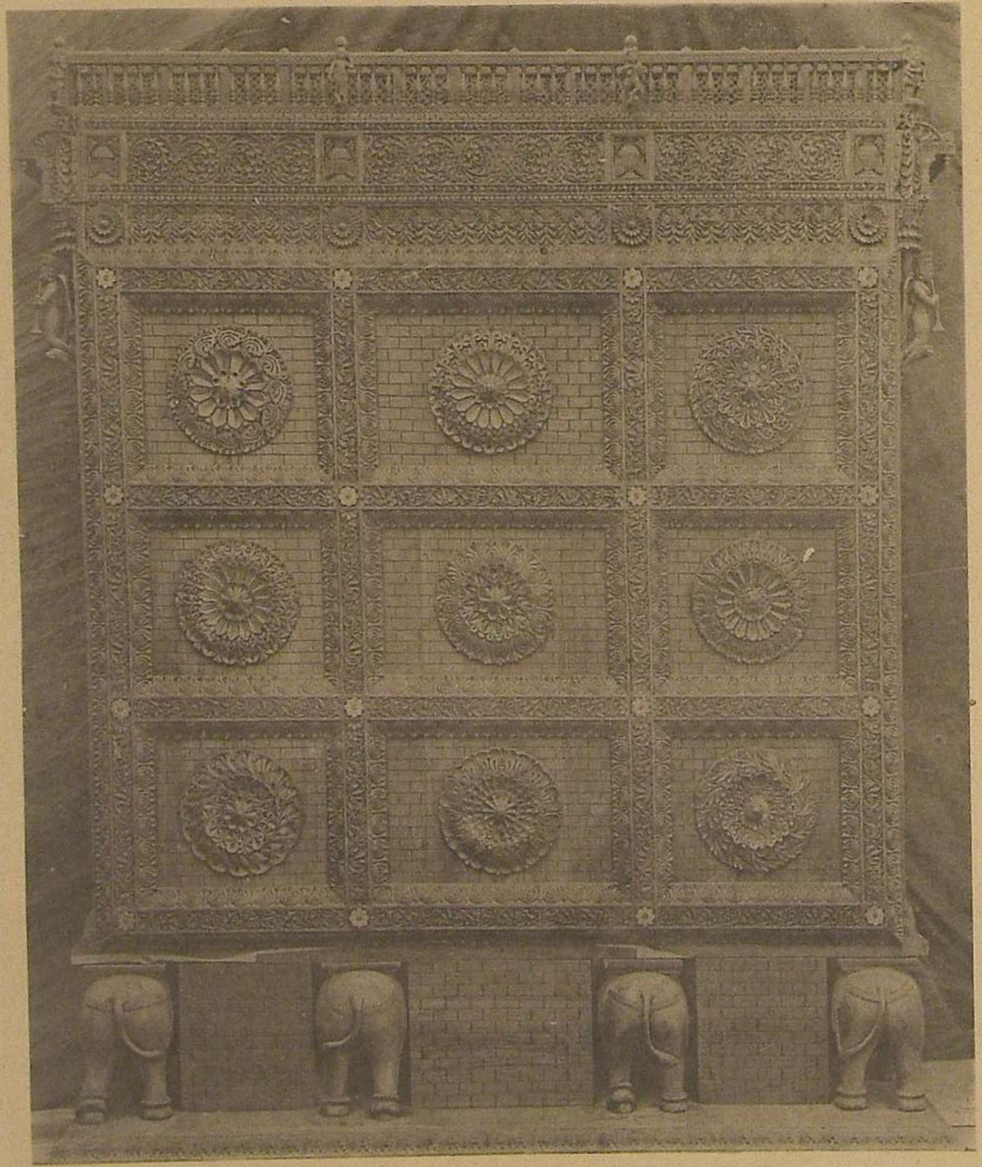
14b

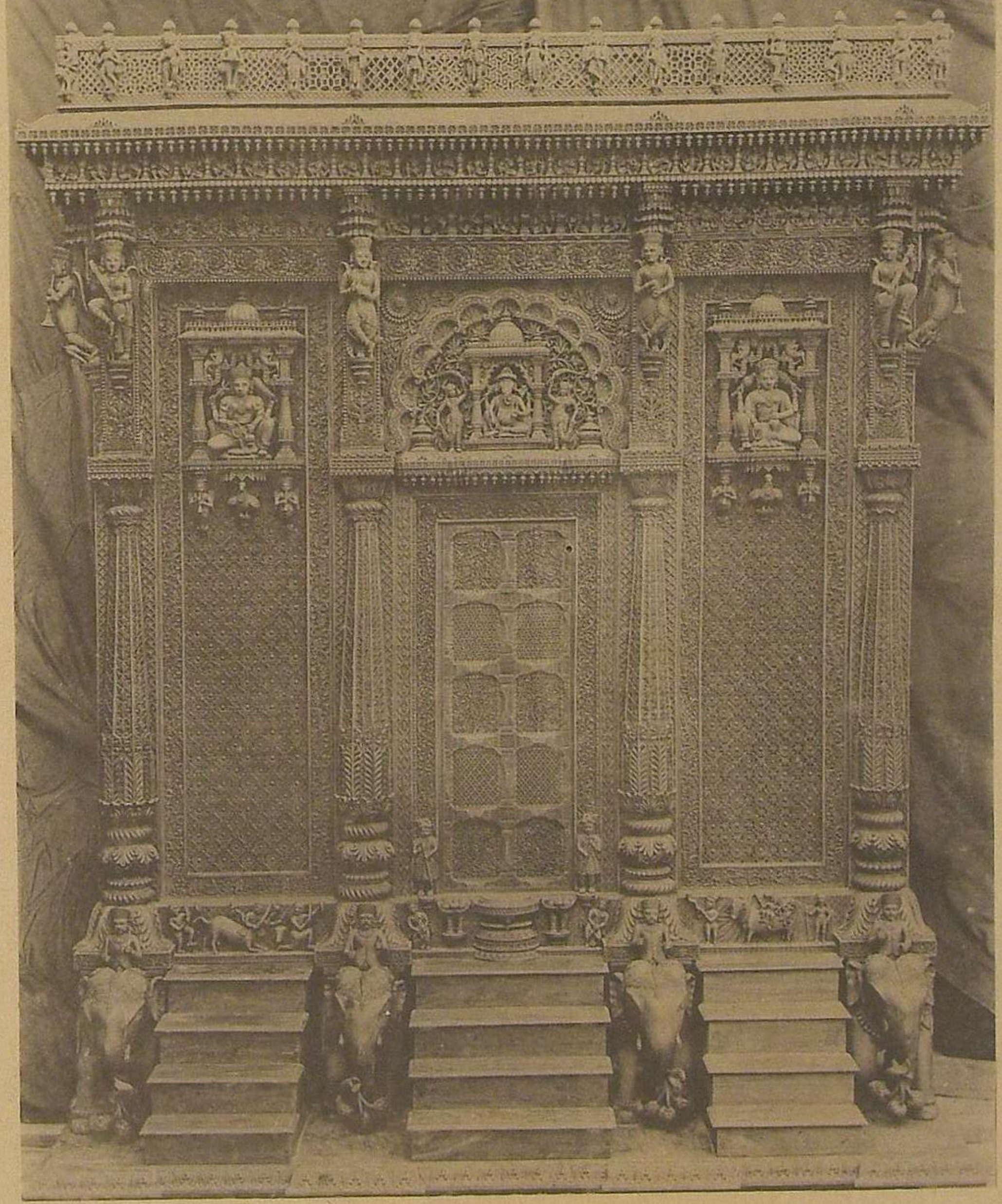
15



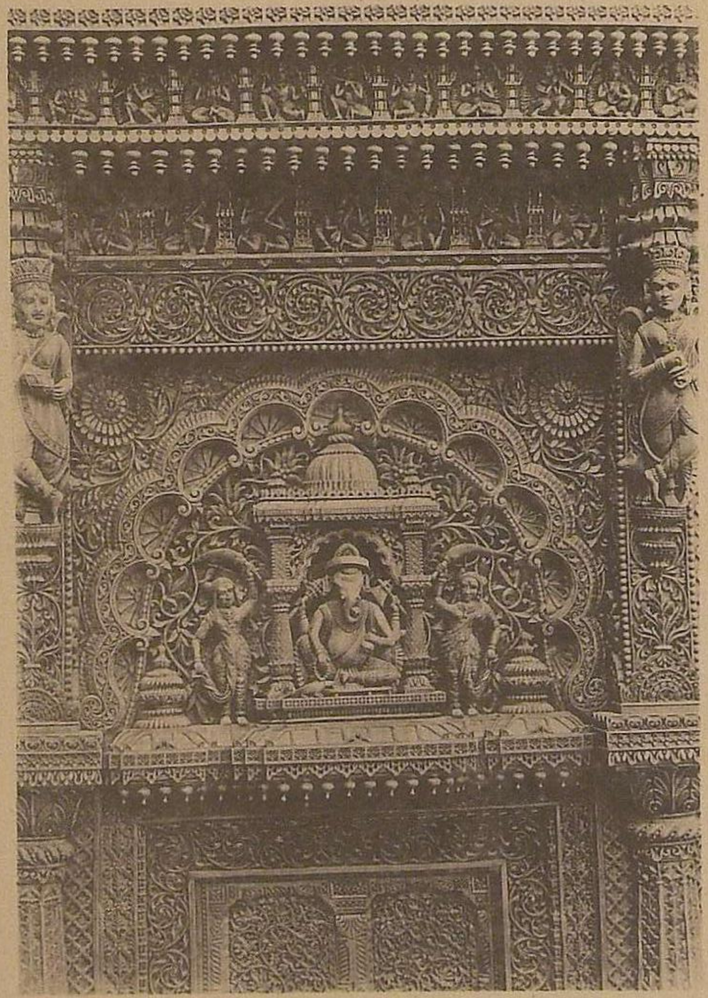
7.—(14a & 14b) Printed Handkerchiefs. (15) *Namabalis*.

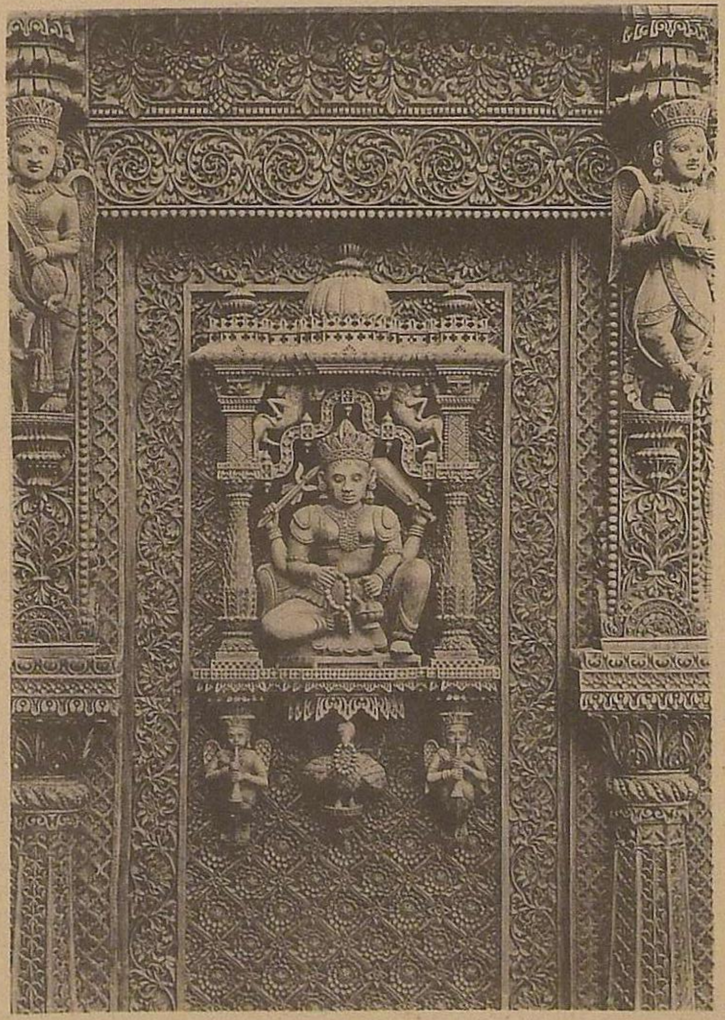
8.—(17) Gold Embroidered Purse and Three S[illegible] Dyed Silk.





9.—Ahmedabad Carved Screen.





10.—Details of Ahmedabad Carved Screen.

11.—Carved Bracket and Enlarged Detail.

THIS LIFE IS THE GREAT SCHOOLMASTER AND EXPERIENCE

THE MIGHTY VOLUME

"It is only through woe that we are taught to reflect, and gather the Honey of Wisdom, not from flowers but THORNS."—*Lord Lytton.*

AT HOME—My Household God.
ABROAD—My Vade Mecum.

A GENERAL OFFICER, writing from Ascot, says:—"Blessings on your 'FRUIT SALT!' I trust it is not profane to say so, but in common parlance I swear by it. Here stands the cherished bottle on the chimney-piece of my sanctum, my little idol, at home my household god, abroad my *vade mecum.* Think not this the rhapsody of a hypochondriac; no, it is the outpouring of a grateful heart. The fact is, I am, in common, I daresay, with numerous old fellows of my age (67), now and then troubled with a tiresome liver. No sooner, however, do I use your cheery remedy, than exit Pain—'Richard is himself again.' So highly do I value your composition that, when taking it, I grudge even the little sediment that will always remain at the bottom of the glass. I give, therefore, the following advice to those wise persons who have learnt to appreciate its inestimable benefits:—

"When ENO'S SALT betimes you take,
No waste of this elixir make,
But drain the dregs and lick the cup
Of this the perfect pick-me-up.'"

Writing again on January 24th, 1888, he adds:—

"Dear Sir,—A year or two ago I addressed you in grateful recognition of the never-failing virtues of your world-famed remedy. The same old man in the same strain now salutes you with the following:

"When Time, who steals our years away,
Shall steal our pleasures too,
ENO'S FRUIT SALT will prove our stay,
And still our health renew."

IN THE BATTLE OF THIS LIFE ENO'S "FRUIT SALT" is an imperative hygienic need, or necessary adjunct. It keeps the blood pure, prevents fevers and acute inflammatory diseases, removes the injurious effects of stimulants, narcotics, such as alcohol, tobacco, tea, coffee, by natural means; thus restores the nervous system to its normal condition, by preventing the great danger of poisoned blood and over-cerebral activity, sleeplessness, irritability, worry, &c.

FEVERS, BLOOD POISONS, &c.—EGYPT.—CAIRO.—"Since my arrival in Egypt in August last, I have on three separate occasions been attacked by fever, from which on the first occasion I lay in hospital for six weeks. The last two attacks have been, however, completely repulsed in a remarkably short space of time by the use of your valuable Fruit Salt, to which I owe my present health, at the very least, if not my life itself. Heartfelt gratitude for my restoration and preservation impels me to add my testimony to the already overwhelming store of the same, and in so doing I feel that I am but obeying the dictates of duty. Believe me to be gratefully yours,

Mr. J. C. Eno. A CORPORAL, 19th Hussars, 26th May, 1883.

HOW KANDAHAR WAS WON.—"During the late Afghan War we were before Kandahar, and had been reconnoitring the enemy's position with Colonel M—'s splendid cavalry regiment, when, to our merriment, the colonel produced a bottle of ENO'S 'FRUIT SALT." 'Take,' he said, 'an old soldier's advice;' so, to please him, we did. We emptied the bottle. And Colonel M—— gave another bottle to P—'s men. We certainly slept soundly that night, and awoke fresh as paint. Two days afterwards the colonel said at mess, 'You fellows laughed at me about ENO'S 'FRUIT SALT,' but it was mainly through that stuff I gave you, did such splendid deeds that day. Personally,' said the colonel, 'I never felt better, and so do the officers of my regiment, and we were ready to encounter half-a-dozen Ayoobs.' After that the colonel was always called 'Old Eno.'"—From "MESS STORIES," by PROTEUS, pp. 126, 127, published by Messrs. Simkin, Marshall & Co., Stationers' Hall Court, 1889.

A NATURAL APERIENT, WITHOUT HAZARDOUS FORCE. An unsolicited testimonial from the late S. C. HALL, F.S.A., who wrote the following when above 80 years of age: "I have for a long time used ENO'S 'FRUIT SALT.' I have found it an effective yet gentle aperient, very beneficial to persons of sedentary habits, especially such as exercise not the limbs but the brain, and frequently require to assist nature without hazardous force. It acts according to the quantity taken—either as a relieving medicine or as a cooling and refreshing drink, and I am convinced that it does not weaken when it stimulates."

INDIA AND ENO'S "FRUIT SALT."—"Dilbrughar, Upper Assam, India, March 6th, 1880. Dear Sir,—I desire to state the advantage which I, and I do not doubt many others in this part of the world, have derived from your 'FRUIT SALT.' Unlike other Saline Aperients, it is not lowering in its action, though previous to its immediate action it naturally causes great thirst. I have used it on board ship in tropical latitudes, and both there and here I can most honestly bear witness to the fact that its use has warded off fever over and over again. When taken in time it is invaluable. As far as I am aware it is most popular in this part of North Eastern Asiatic India, and I consider that you are distinctly entitled to this testimonial from me. I need not add it is wholly unrequested. I enclose my card, but from my extreme individual inconvenience arising from publicity, I do not wish my name to appear, and merely subscribe myself, most truly yours, 'A PLANTER.'—J. C. ENO, Esq., HATCHAM FRUIT SALT WORKS, LONDON, S.E.

SUPERIOR TO ALL OTHER SALINES.—"Dear Sir,—Having been in the habit of taking your 'FRUIT SALT' for many years, I think it is only right to tell you that I consider it a most invaluable medicine, and far superior to all other saline mixtures I have ever tried. I am never without a bottle of it in the house, as I find it possesses three most desirable qualities—namely, it is pleasant to the taste, promptly efficacious, and leaves no unpleasant after-effects. I do not wish my name to appear, but apart from the publication of that you are welcome to make use of this testimonial if it is of service.—A DEVONSHIRE LADY.—January 25th, 1889.

THE SECRET OF SUCCESS.—STERLING HONESTY OF PURPOSE, WITHOUT IT LIFE IS A SHAM! "A new invention is brought before the public, and commands success. A score of abominable imitations are immediately introduced by the unscrupulous, who, in copying the original closely enough to deceive the public, and yet not so exactly as to infringe upon legal rights, exercise an ingenuity that, employed in an original channel, could not fail to secure reputation and profit."—Adams. CAUTION.—Examine each bottle and see that the capsule is marked Eno's "Fruit Salt." Without it you have been imposed on by a worthless imitation. Sold by all Chemists.

Prepared only at ENO'S "FRUIT SALT" WORKS, LONDON, S.E., by J. C. ENO'S PATENT.

RHEUMATIC AND NERVOUS SUFFERERS

AND ALL WHO ARE TROUBLED WITH

Indigestion, Brain Fag, Dyspepsia; Nervous Exhaustion, Impaired Vitality, Gout, Sciatica; Torpid Liver, Sleeplessness; Bad Circulation, Constipation; Neuralgia, Paralysis; Internal Weakness, General Debility, Melancholia; Hysteria, Kidney Disease, Organic Disorders, &c.

SHOULD WEAR

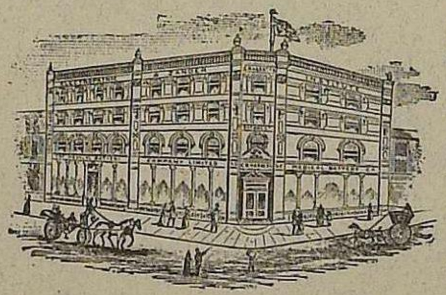
HARNESS' ELECTROPATHIC BELT

These genuine Electric Belts are exceedingly comfortable to wear, give wonderful support and vitality to the internal organs of the body, improve the figure, prevent chills, impart new life and vigour to the debilitated constitution, stimulate the organic action, promote the circulation, assist digestion, and promptly renew that vital energy the loss of which is the first symptom of decay. Their healing properties are multifarious. They stimulate the functions of various organs, increase their secretions, give tone to muscle and nerves, relax morbid contractions, improve nutrition, and

RENEW EXHAUSTED NERVE FORCE.

Acting directly on the system, they sustain and assist its various functions, and thus promote the health and vigour of the entire frame.

Besides these benefits, the mind is maintained in a buoyant, cheerful state, and every faculty is stimulated to the highest condition of intellectual strength. Harness' Electropathic Belts have stood the test of nearly twenty-five years, have restored thousands of sufferers to health and vigour, are guaranteed to be perfectly genuine, and are constructed on sound scientific principles.



Lumbago and Affection of the Kidney.—Mr. GEORGE BUCKLE, 66, Shorne Rd., South Lambeth, writes: "I am most happy to inform you that I have been much better since wearing Harness' Electropathic Belt. Before wearing it I could scarcely walk, and when seated could not rise without great pain. Now I can walk and run comfortably, and my back is much stronger. I have highly recommended your Electropathic Belt to several of my friends."

VITAL ENERGY RESTORED

PAMPHLETS FREE.

Internal Weakness.—Mrs. CHARLOTTE LAMBERT, 15, Bridge Terrace, Bank Top, Darlington, writes: "I have greatly improved in health since I commenced to wear your Electropathic Belt. I seem to have MORE LIFE AND ENERGY, and I CAN GET THROUGH MY WORK without feeling as tired as I used to do. I am very pleased I obtained it, as I feel it to be a great support. I have great pleasure in thanking you for the benefit I have derived."

Mr. C. B. HARNESS, the President of the Electropathic and Zander Institute, and the other Officers of the Company, may be consulted free of charge, either personally or by letter, on all matters relating to Health and the application of Curative Electricity.

Call or write to the only address:

CALL AND SEE THE BELTS SCIENTIFICALLY TESTED.

MEDICAL BATTERY CO., LD.,

THE LARGEST ELECTRO-MEDICAL INSTITUTE

52 OXFORD ST LONDON W

CHEQUES AND POSTAL ORDERS SHOULD BE CROSSED "LONDON AND

IMPERIAL INSTITUTE.

1892.

Special Exhibition of Indian

ART METAL-WORK.

A very valuable, and in many respects unique, Collection of INDIAN ART METAL-WORK in all its branches will be exhibited in the buildings of the Imperial Institute during the Summer and Autumn months.

It is intended to open the Exhibition about the middle of June.

An extensive Loan Collection will form a special feature of the Exhibition, and owners of Specimens of Indian Metal-Work of an artistic character (including Armour and Weapons) are invited to add to the value of this Collection by contributing specimens.

All particulars can be obtained on application to—

Surgeon Lieut.-Colonel T. H. HENDLEY, C.I.E.

(Hon. Secretary to the Special Committee, by whom the Exhibition is being organized).

IMPERIAL INSTITUTE, IMPERIAL INSTITUTE ROAD, LONDON, S.W.

DAMASCENING OF ARMS IN GOLD.

The Armoury of H.H. The Maharaja of Jeypore contains a number of most beautiful specimens of Arms which have been enriched with exquisite designs in gold wire. These show great fertility of invention, and afford a very good idea of the artistic skill and good taste of Indian workmen in using decorative ornament. Floral patterns, minute landscapes, diapers, and mythological figures have been equally well adapted to the end in view. The Jeypore collection shows how much the art of damascening in gold has degenerated during the past few years in Northern India.

A selection of the best examples, chiefly of sword hilts and dagger handles, will be published early, with descriptive letterpress by Surgeon Lieut.-Colonel T. H. HENDLEY, C.I.E., Indian Medical Service.

The volume (quarto imperial) will contain over 100 examples, in about 26 full page coloured illustrations reproduced by W. GRIGGS, and will be issued to subscribers at £2.

Names of Subscribers will be received by

W. GRIGGS & SONS, LTD.,

Elm House, Hanover Street, Peckham, S.E.